

EXHIBIT 30

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

TQ DELTA, LLC,

Plaintiff,

v.

2WIRE, INC.,

Defendant.

Civil Action No. 13-cv-01835-RGA

TQ DELTA, LLC,

Plaintiff,

v.

ZYXEL COMMUNICATIONS, INC
and
ZYXEL COMMUNICATIONS
CORPORATION,

Defendants.

Civil Action No. 13-cv-02013-RGA

TQ DELTA, LLC,

Plaintiff,

v.

ADTRAN, INC.,

Defendant.

Civil Action No. 14-cv-00954-RGA

ADTRAN, INC.,

Plaintiff,

v.

TQ DELTA, LLC,

Defendant.

Civil Action No. 15-cv-00121-RGA

MEMORANDUM OPINION

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February 7, 2018



ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent Nos. 7,453,881 (“the ’881 patent”); 7,809,028 (“the ’028 patent”); 7,978,706 (“the ’706 patent”); and 8,422,511 (“the ’511 patent”). The Court has considered the Parties’ Joint Claim Construction Brief. (Civ. Act. No. 13-01835-RGA, D.I. 346; Civ. Act. No. 13-02013-RGA, D.I. 332; Civ. Act. No. 14-00954-RGA, D.I. 185; Civ. Act. No. 15-00121-RGA; D.I. 187).¹ The Court heard oral argument on November 2, 2017. (D.I. 399).

I. BACKGROUND

The patents-in-suit represent “Family 2” of the patents that Plaintiff has asserted against Defendants, and they all share a common specification. (D.I. 346 at 7 n.1). The Family 2 patents relate to reducing latency, or end-to-end delay of data transmission, in asynchronous transfer mode (“ATM”) communications systems. The patents claim both methods and systems for distributing a data stream across multiple digital subscriber lines (“DSL”) PHY’s² at a transmitter, and recombining the multiple data streams at a receiver, thereby generating a high data rate connection in ATM communications systems.

II. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (citation omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v.*

¹ Unless otherwise specifically noted, all references to the docket refer to Civil Action No. 13-1835-RGA.

² According to Plaintiff’s expert, the Family 2 specification “equates a DSL PHY with a twisted wire pair, which is a transmission medium or physical link.” (D.I. 346 at 21).

The parties agreed during oral argument that the construction for “transceiver” in the Family 2 patents should be the same as the construction for “transceiver” in the Family 1 patents. (D.I. 399 at 7:3-25). Therefore, I construe “transceiver” to mean “communications device capable of transmitting and receiving data wherein the transmitter portion and receiver portion share at least some common circuitry.” (D.I. 477 at 4).

**2. “plurality of bonded transceivers”
(’881 patent, claims 17 & 18; ’028 patent, claims 1 & 2)**

- a. *Plaintiff’s proposed construction*: “two or more transceivers configurable to be located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links”
- b. *Defendants’ proposed construction*: “two or more transceivers, each corresponding to a physical link, coordinated to transmit or receive a different portion of the same bit stream via a different one of the physical links”
- c. *Court’s construction*: “two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links, wherein ‘configurable to’ precludes rebuilding, recoding, or redesigning any of the components in a ‘plurality of bonded transceivers’”

The parties’ proposed constructions present two disputes with respect to this term, both dealing with the proper scope of the term.³ First, the parties’ proposed constructions differ regarding whether the transceivers that comprise a “plurality of bonded transceivers” are restricted to being located on the same side of two or more physical links. Second, the parties dispute whether the transceivers comprising a “plurality of bonded transceivers” must be “configured

³ Both parties cite portions of the specification discussing “ADSL PHYs ‘bonded’ together” to support their proposed constructions of the disputed “transceiver” terms. (See, e.g., D.I. 346 at 50, 54). Though these portions of the specification do not recite a “transceiver,” neither party disputes their relevance to the construction of the disputed terms, perhaps because the specification mentions “transceiver” only three times. I therefore consider this evidence relevant to the construction of the disputed “transceiver” terms.

to/coordinated to”⁴ or merely “configurable to” transmit or receive a different portion of the bit stream via a different one of the physical links.

In its briefing, Plaintiff asserts that “[t]he phrase ‘located on the same side of two or more physical links’” is one of the “key concepts” of bonding. (D.I. 346 at 40). Plaintiff further argues that Defendants’ proposed construction is improper because it “allow[s] for the possibility of two transceivers on opposite sides of a system being the transceivers that are ‘bonded.’” (*Id.*). During oral argument, however, Plaintiff seemed to retreat from this position, arguing that requiring two or more transceivers to be located on the same side of two or more physical links “would add some additional requirements to” the “in the box[] capabilities” of a “plurality of bonded transceivers.” (D.I. 399 at 20:7-21). Defendants contend that Plaintiff’s proposed construction represents a “transparent attempt to broaden the meaning of the claims” by allowing transceivers “‘configurable’ to be located on the same side of two or more physical links and ‘configurable’ to transmit or receive a different portion of the same bit stream.” (D.I. 346 at 44 (emphasis omitted)). According to Defendants, Plaintiff’s proposed construction should be rejected because it would “eliminate the clear requirement of the claim language that the transceivers actually be bonded with one another” and eliminate the requirement for a physical link when the specification clearly describes one. (*Id.*). As support, Defendants offer their expert’s statement that, “Nearly any transceiver can be configurable, or configured to be on a transmit or receive side.” (D.I. 347 at A556).

⁴ Though Defendants’ proposed construction on the papers was “coordinated to,” Defendants represented during oral argument that they would also accept a “configured to” construction. (D.I. 399 at 29:1-16).

On this point I agree with Defendants. Plaintiff does not dispute that “nearly any transceiver can be configurable, or configured to be on a transmit or receive side.”⁵ The specification distinguishes “bonded” ADSL PHYs from “unbonded, i.e. traditional” ADSL PHYs based on whether they are actually connected to the multi-pair multiplexer, not whether they are “configurable” to be in some sort of physical relationship with one another. (’881 patent at 4:34-45 (“In addition to the two ADSL PHYs 160 and 170 that are bonded together, it should further be appreciated that in some instances in the same access node 100, other ADSL PHYs may be operating in the traditional way. Obviously, the ADSL PHYs operating the traditional way do not need to be connected to the multi-pair multiplexer.”)). This suggests that to be “bonded,” the physical arrangement of a plurality of transceivers must meet certain physical configuration requirements. The specification is also consistent with Plaintiff’s position in the briefing that “if a plurality of bonded transceivers were to transmit or receive a portion of the same bit stream they would necessarily have to be on the same side of the line.” (D.I. 346 at 48). Thus, I find that a “plurality of bonded transceivers” requires that each transceiver is “located on the same side of two or more physical links.”

The parties also dispute whether each transceiver in a “plurality of bonded transceivers” must be “configurable to” or “configured to” transmit or receive a different portion of the same bit stream via a different one of the physical links. Since the claim language unambiguously requires “bonded transceivers” independent of their claimed functions, Defendants assert that Plaintiff’s construction is improper because it broadens “the claim to cover any transceiver that is merely configurable to be bonded with another transceiver.” (*Id.* at 54). Plaintiff counters that

⁵ Instead, Plaintiff seems to argue that the Court should ignore this concern because Plaintiff’s proposed construction contains additional limitations that would preclude “nearly any transceiver” from qualifying as a “bonded” transceiver. (D.I. 346 at 49-50). This ignores the distinction drawn in the specification.

Defendants' proposed construction "attempt[s] to add the requirement that such 'bonded transceivers' be actively bonding" when neither the specification nor the claims impose any such requirement. (*Id.* at 48-51 (citing '881 patent at 11:31-34 ("The ATM over DSL system can also be implemented by physically incorporating the system and method into a software and/or hardware system, such as the hardware and software systems of a communications transceiver."))).

Plaintiff interprets Defendants' proposed "configured to" construction to require that a "plurality of bonded transceivers" be actively engaged in bonding. (*Id.* at 50). Defendants argue in their briefing that their "proposed construction does not necessarily require that the device be in operation, only . . . bonded and coordinated to" perform "the other limitations of the claim." (*Id.* at 54). During oral argument, however, Defendants asserted that bonded transceivers "have to actually be configured, put into operation, configured to be bonded and operate, you know, to, as you said, divide the data stream and send it across different lines." (D.I. 399 at 31:3-15). Given the discrepancies between Defendants' statements, I find Defendants' position on the meaning of "configured to" unclear.

Defendants appear to interpret Plaintiff's proposed "configurable to" construction to encompass all capabilities of the claimed apparatus, including those enabled by any hardware or software modifications that a person of ordinary skill in the art ("POSA") could implement. (D.I. 346 at 44, 54 ("[Plaintiff's] proposed construction, on the other hand, transparently tries to broaden the claim to cover any transceiver that is merely configurable to be bonded with another transceiver.")). During oral argument, however, Plaintiff clarified its understanding of "configurable to" to be more restrictive than "capable of" in the context of performing a function. (D.I. 399 at 19:6-19). According to Plaintiff, "capable of" connotes that "the idea that you're capable of redesigning and rebuilding it could come into play whereas configurable does not have

that connotation to it.” (*Id.*). In other words, “configurable means it is already designed to do this.” (*Id.*; *see also id.* at 16:3-6 (“[T]he two [bonded transceivers] have to be in the same device, and the device natively includes the bonding hardware and software that bonds the transceivers together.”)).

Having decided that a “plurality of bonded transceivers” requires that each transceiver is “located on the same side of two or more physical links,” I will adopt Plaintiff’s understanding of “configurable to,” and construe a “plurality of bonded transceivers” to mean “two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links.”

This construction mitigates Defendants’ primary concern that Plaintiff’s proposed construction broadens the claim scope to include any transceiver that a POSA could modify to create a “bonded transceiver.” Under my construction, a transceiver cannot be a “bonded transceiver” unless it contains the hardware (in the required physical arrangement) and the software necessary for bonding, in such a form that a POSA would not have to rebuild or recode the hardware or software for the transceiver to perform the bonding function. (*See id.* at 16:3-6, 19:6-19). A transceiver may be a “bonded transceiver” if the hardware and software components are present in such a way that a POSA would have to activate them (e.g., by turning the transceiver on) to accomplish the bonding function, but if a POSA would have to modify source code in a transceiver, for example, the transceiver would not qualify as a “bonded transceiver.”

This construction is also consistent with the specification’s disclosure that, “The ATM over DSL system can also be implemented by physically incorporating the system and method into a software and/or hardware system, such as the hardware and software systems of a communications

transceiver.” (’881 patent at 11:31-34). The specification’s disclosure that system of the invention can be implemented by “physically incorporating” the elements of the claims “into a software and/or hardware system” does not suggest that actual operation of the system would be required to practice the system claims of the invention. In turn, the recited “plurality of bonded transceivers” need not be actively bonding.

Defendants maintain that I should adopt their proposed construction because “the claim language [in claims 17 and 18] does not use language of mere ‘capability’ or ‘configurability,’” whereas claims 19 and 20 use such language, suggesting that the patentee expressly chose not to use that language in claims 17 and 18, and in turn that claims 17 and 18 must impart something more than capability. (D.I. 346 at 54). Though claims 19 and 20 claim the bonded transceivers of claim 17 in terms of their capability to accomplish different functions (’881 patent at claims 19-20), none of the claims recite an apparatus in terms of “configurability.” Any argument by Defendants that “capability” and “configurability” are equivalent is mooted by my finding that “configurability,” in the context of the asserted claims, has a narrower meaning than “capability.” I therefore find Defendants’ argument unpersuasive.

Finally, Defendants submit that Plaintiff should not be able to broaden the claims to encompass scope that Plaintiff previously disclaimed during prosecution. (D.I. 346 at 55). As originally recited, claim 29 (which became asserted claim 17) referred to “[a] transceiver capable of utilizing at least one transmission parameter value” (D.I. 347 at A483). After the Examiner rejected this language for lack of enablement, Plaintiff amended the language to recite “[a] plurality of bonded transceivers, each bonded transceiver utilizing at least one transmission parameter value” (*Id.* at A447). This, according to Defendants, represents a disclaimer of claim scope that Plaintiff “should not be allowed to recapture through claim construction.” (D.I.

346 at 56). First, the Examiner's rejection of the "capable of" claim language occurred in the context of enablement, an issue which the parties do not argue here. (D.I. 347 at A471-72). Second, the rejected "capable of" language modified a "transceiver," not a "bonded transceiver." (*Id.* at A471-72, A483). Contrary to Defendants' assertions, I thus conclude that Defendants' prosecution history evidence fails to amount to a clear disclaimer.

Accordingly, I construe "plurality of bonded transceivers" to mean "two or more transceivers located on the same side of two or more physical links where each transceiver is configurable to transmit or receive a different portion of the same bit stream via a different one of the physical links, wherein 'configurable to' precludes rebuilding, recoding, or redesigning any of the components in a 'plurality of bonded transceivers.'"